

**BLODGETT**®

**RE SERIES**  
**ELECTRIC CONVECTION ROLL-IN OVEN**  
**INSTALLATION – OPERATION – MAINTENANCE**



**BLODGETT OVEN COMPANY**

[www.blodgett.com](http://www.blodgett.com)

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# IMPORTANT

**WARNING: IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE, INJURY OR DEATH. READ THE INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS THOROUGHLY BEFORE INSTALLING OR SERVICING THIS EQUIPMENT**

## FOR YOUR SAFETY

**Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.**

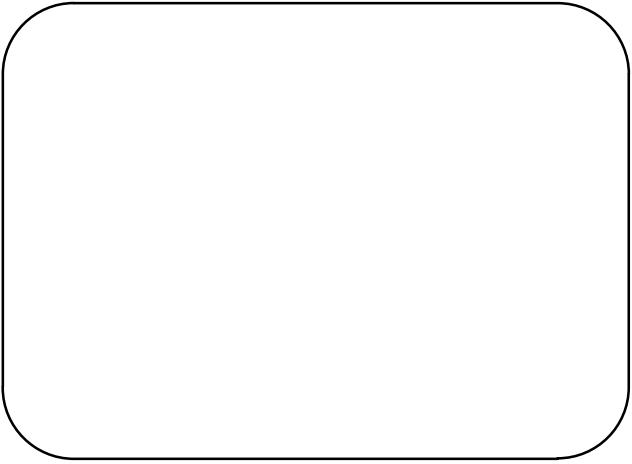
The information contained in this manual is important for the proper installation, use, and maintenance of this oven. Adherence to these procedures and instructions will result in satisfactory baking results and long, trouble free service. Please read this manual carefully and retain it for future reference.

**Errors:** Descriptive, typographic or pictorial errors are subject to correction. Specifications are subject to change without notice.



***THE REPUTATION YOU CAN COUNT ON***

For over a century and a half, The Blodgett Oven Company has been building ovens and nothing but ovens. We've set the industry's quality standard for all kinds of ovens for every foodservice operation regardless of size, application or budget. In fact, no one offers more models, sizes, and oven applications than Blodgett; gas and electric, full-size, half-size, countertop and deck, convection, Cook'n Hold, Combi-Ovens and the industry's highest quality Pizza Oven line. For more information on the full line of Blodgett ovens contact your Blodgett representative.

	<p>Your Service Agency's Address:</p> <hr/>	<p>Model:</p> <hr/>
	<p>Serial Number:</p> <hr/>	<p>Your oven was installed by:</p> <hr/>
	<p>Your oven's installation was checked by:</p> <hr/>	

# Table of Contents

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<b>Introduction</b>	
Oven Description .....	2
Oven Components .....	3
<b>Installation</b>	
Oven Assembly .....	4
Delivery and Inspection .....	4
Legs and Docking Assembly .....	4
Leveling the Oven .....	4
Aligning the Docking Mechanism .....	5
Utility Connections – Standards and Codes .....	6
Electrical Connection .....	7
<b>Operation</b>	
Safety Information .....	8
Oven Controls .....	9
General Guidelines for Operating Personnel .....	10
Suggested Times and Temperatures .....	11
<b>Operation</b>	
<b>Maintenance</b>	
Cleaning and Preventative Maintenance .....	12
Troubleshooting Guide .....	13



## Introduction

### Oven Description

Cooking in a convection oven differs from cooking in a conventional deck or range oven since heated air is constantly recirculated over the product by a fan in an enclosed chamber. The moving air continually strips away the layer of cool air surrounding the product, quickly allowing the heat to penetrate. The result is a high quality product, cooked at a lower temperature in a shorter amount of time.

Blodgett convection ovens represent the latest advancement in energy efficiency, reliability, and ease of operation. Heat normally lost, is recirculated within the cooking chamber before being vented from the oven: resulting in substantial reductions in energy consumption and enhanced oven performance.



# Introduction

## Oven Components

**Heating Elements** – located on the back wall of the oven, the elements provide heat to the baking chamber on electric ovens.

**Chain & Turnbuckle** – controls operation of the oven doors.

**Control Panel** – contains wiring and components to control the oven operation.

**Oven Racks** – chrome plated oven racks are available.

**Blower Wheel Cover** – located on the back interior wall of the oven. Protects the blower wheel.

**Blower Wheel** – spins to circulate hot air in the baking chamber.

**Convection Motor** – provides power to turn the blower wheel.

**Rack Supports** – hold oven racks.

**Transport Cart** – Used to load large amounts of product. Available with racks and baskets.

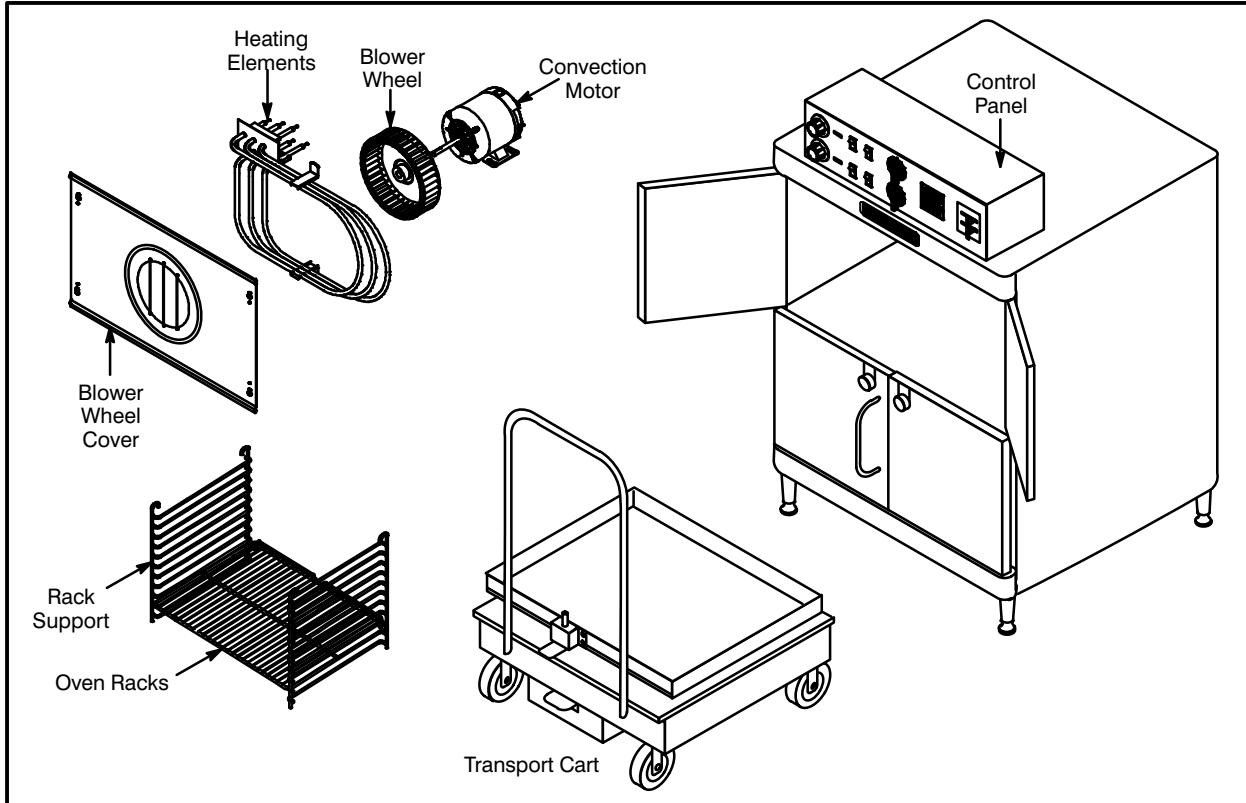


Figure 1



# Installation

## Oven Assembly

### DELIVERY AND INSPECTION

All Blodgett ovens are shipped in containers to prevent damage. Upon delivery of your new oven:

- Inspect the shipping container for external damage. Any evidence of damage should be noted on the delivery receipt which must be signed by the driver.
- Uncrate the oven and check for internal damage. Carriers will accept claims for concealed damage if notified within fifteen days of delivery and the shipping container is retained for inspection.

**The Blodgett Oven Company cannot assume responsibility for loss or damage suffered in transit. The carrier assumed full responsibility for delivery in good order when the shipment was accepted. We are, however, prepared to assist you if filing a claim is necessary.**

### LEGS AND DOCKING ASSEMBLY

1. Remove the trim panel located at the bottom of the oven, just below the doors.
2. Place the oven on its back.
3. Align the threaded stud in the front legs with the nut located inside each bottom front corner of the oven frame. Turn the legs clockwise to tighten.
4. Align the two leg plate holes in each leg with the holes in the oven bottom. Secure the leg using two 1/2" bolts.
5. Align the docking assembly holes with the holes in the oven bottom. Hand tighten the four bolts and nuts supplied with the oven.
6. Tip the oven up on the front legs. Repeat steps 3-4 for the rear legs.

*NOTE: Be sure to attach each leg with three bolts.*

### LEVELING THE OVEN

To level the oven screw the leg feet in or out.

1. Screw the adjustable feet all the way into the leg. Check that the oven is level on the front, back and sides; if not adjust accordingly.
2. After levelling, the distance from the underside of the oven to the floor should be close to 7-3/16" (18.3 cm).

*NOTE: This measurement is important for docking alignment of transport cart.*

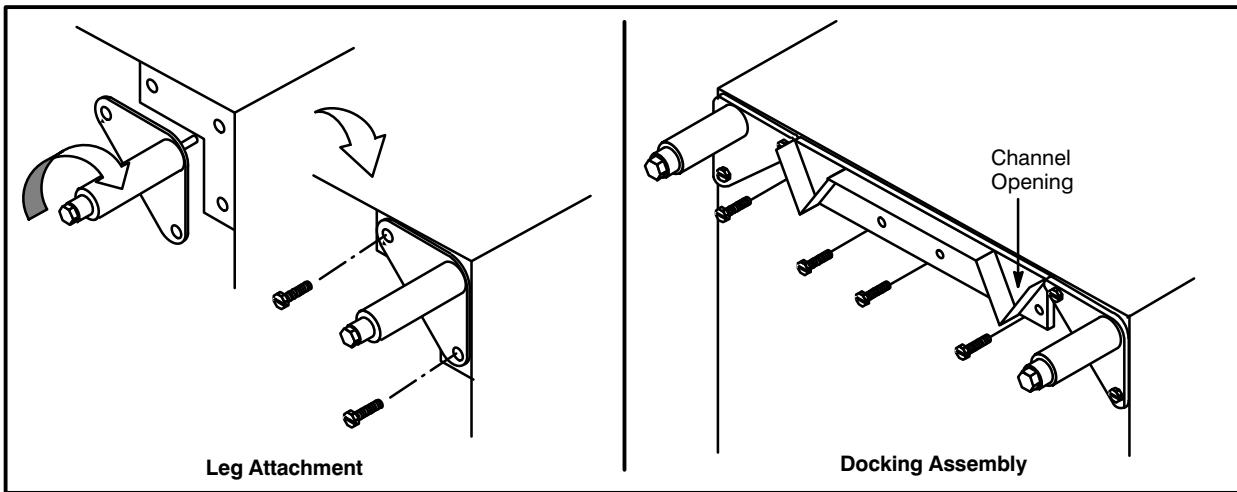


Figure 2



# Installation

## Oven Assembly

### ALIGNING THE DOCKING MECHANISM

1. Open the oven doors fully.
2. Move and latch the transport cart into place at the front of the oven. The two alignment pins on the front of the cart should line up with the channelled openings in the docking assembly. The locking bar also locks to the docking assembly.
3. Align the inner vertical edge of the tracks on the transport cart with the same vertical edge of the tracks located on the oven liner floor. This adjustment can be made by moving the docking assembly either left or right. Tighten the four bolts with a wrench.
4. Level the tracks on the transport cart to the same height as the tracks on the oven liner floor. This adjustment is made by raising or lowering the nuts on the four levelling screws located on each corner of the transport cart.
5. When the transport cart locks properly to the front of the oven the unit is ready for loading operation.

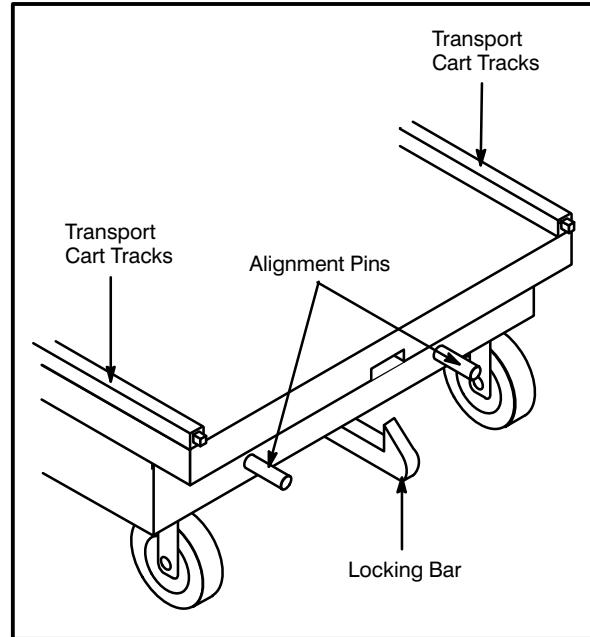


Figure 3



# Installation

## Utility Connections – Standards and Codes

THE INSTALLATION INSTRUCTIONS CONTAINED HEREIN ARE FOR THE USE OF QUALIFIED INSTALLATION AND SERVICE PERSONNEL ONLY. INSTALLATION OR SERVICE BY OTHER THAN QUALIFIED PERSONNEL MAY RESULT IN DAMAGE TO THE OVEN AND/OR INJURY TO THE OPERATOR.

Qualified installation personnel are individuals, a firm, a corporation, or a company which either in person or through a representative are engaged in, and responsible for:

- the installation of electrical wiring from the electric meter, main control box or service outlet to the electric appliance.

Qualified installation personnel must be experienced in such work, familiar with all precautions required, and have complied with all requirements of state or local authorities having jurisdiction.

### U.S. and Canadian installations

All ovens, when installed, must be electrically grounded in accordance with local codes, or in the absence of local codes, with the *National Electrical Code, ANSI/NFPA 70—Latest Edition* and/or *Canadian National Electric Code C22.2* as applicable.

The ventilation of this oven should be in accordance with local codes. In the absence of local codes, refer to the National ventilation code titled, *“Standard for the Installation of Equipment for the Removal of Smoke and Grease Laden Vapors from Commercial Cooking Equipment”*, NFPA-96-Latest Edition.

### General export installations

Installation must conform with Local and National installation standards. Local installation codes and/or requirements may vary. If you have any questions regarding the proper installation and/or operation of your Blodgett oven, please contact your local distributor. If you do not have a local distributor, please call the Blodgett Oven Company at 0011-802-860-3700.





# Installation

## Electrical Connection

Before making any electrical connections to this unit, check the rating plate located on the oven control panel. Make sure the oven is being connected to the proper electrical supply.

The supply conduit is connected to the junction box located at the right rear corner of the oven.

### ELECTRICAL SPECIFICATIONS

KW/Section	Voltage	HZ	Phase	Amperage			Electrical Connection AWG
				L1	L2	L3	
21	208	60	1	103	—	103	1
21	208	60	3	58	56	57	4
21	220-240	60	1	89	—	89	2
21	220-240	60	3	51	53	51	6
21	460-480	60	3	26	26	26	8

*NOTE: Use 75°C copper wire.*



# Operation

## Safety Information

THE INFORMATION CONTAINED IN THIS SECTION IS PROVIDED FOR THE USE OF QUALIFIED OPERATING PERSONNEL. QUALIFIED OPERATING PERSONNEL ARE THOSE WHO HAVE CAREFULLY READ THE INFORMATION CONTAINED IN THIS MANUAL, ARE FAMILIAR WITH THE FUNCTIONS OF THE OVEN AND/OR HAVE HAD PREVIOUS EXPERIENCE WITH THE OPERATION OF THE EQUIPMENT DESCRIBED. ADHERENCE TO THE PROCEDURES RECOMMENDED HEREIN WILL ASSURE THE ACHIEVEMENT OF OPTIMUM PERFORMANCE AND LONG, TROUBLE-FREE SERVICE.

Please take the time to read the following safety and operating instructions. They are the key to the successful operation of your Blodgett conveyor oven.

### SAFETY TIPS

#### For your safety read before operating

- DO NOT remove the control panel cover unless the oven is unplugged.

# Operation



## Oven Controls

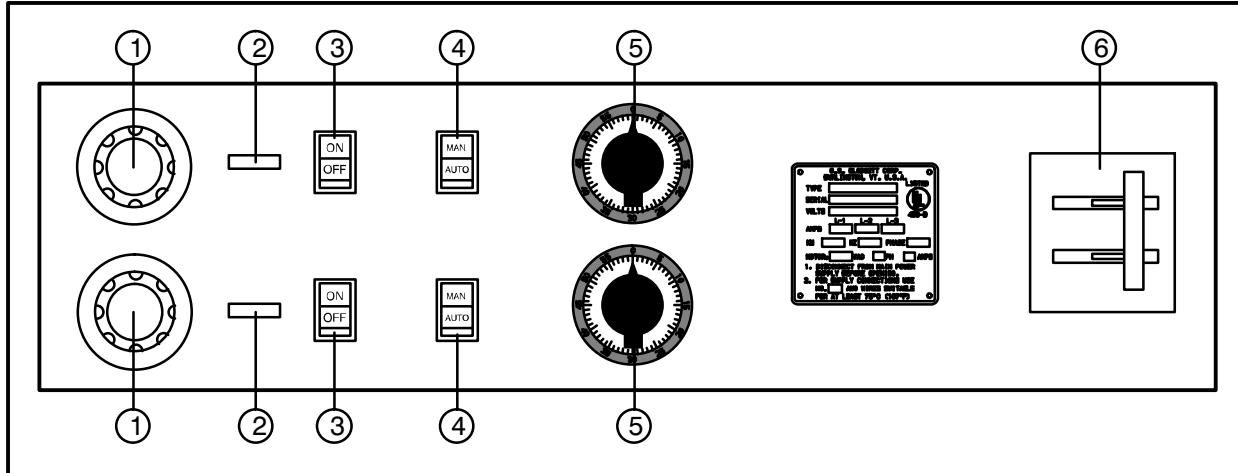


Figure 4

### COMPONENT DESCRIPTION

There are two rows of switches and controls on the left hand side of the panel. The top set of controls operate the upper motor and heating elements. The bottom set of controls operate the lower motor and heating elements.

1. THERMOSTAT – Controls oven temperature.
2. OVEN READY INDICATOR LIGHT – When lit indicates the elements are operating. When the light goes out the oven has reached operating temperature.
3. BLOWER SWITCH – Controls power to the blowers.
4. COOL DOWN SWITCH – Controls power to the cool down fans. These switches should be left in the AUTO position to allow proper automatic operation of the blower with the doors closed. For rapid cool down, use the MAN position to operate the blowers with the door open.
5. TIMER – Controls length of the cook time.
6. CIRCUIT BREAKER – Controls power to the oven.

### CONTROL OPERATION

*NOTE: The upper section is wired separately from the lower section. They may be operated independently or simultaneously.*

1. Place the BLOWER switches (3) in the ON position. Place the COOL DOWN switches (4) in the AUTO position.
2. Turn the THERMOSTATS (1) to the desired cook temperature.

*NOTE: When the upper and lower controls are operated as a single unit, both thermostats should have the same temperature setting.*

3. Preheat until the OVEN READY INDICATOR light (2) goes out.
4. Load product into the oven.
5. Set the TIMERS (5) for the desired cook time.
6. Remove the product when the time expires.



# Operation

## General Guidelines for Operating Personnel

### COOK TIMES AND TEMPERATURES

For almost all products, temperatures must be lower than those called for in deck or range oven recipes. Generally, reducing temperatures by 50°F (10°C) is about right, however some recipes and types of pans may require a greater decrease in temperature. Check the product in about half the time it would take to bake in a conventional oven. If the product is brown on the outside and not done inside, lower the temperature an additional 15–25°F (10–15°C).

### USING THE TRANSPORT CART

When loading the oven with the transport cart, be sure the cart is securely locked to the oven before transferring the load. To move the load into the oven, step down on the upper foot pedal and push the product forward. The roll-in basket dolly should be inserted all the way into the oven before removing the transport cart. This prevents the load from spilling and allows the door to close properly. To remove the transport cart from the oven, step down on the lower foot pedal and pull the cart away from the oven. Close the doors.

While unloading the oven, the transport cart must be securely locked to the front before transferring the load. The load is pulled from the oven onto the cart.



#### WARNING!!

**Be sure the basket carrier is locked securely on the transport cart before releasing the cart from the oven.**

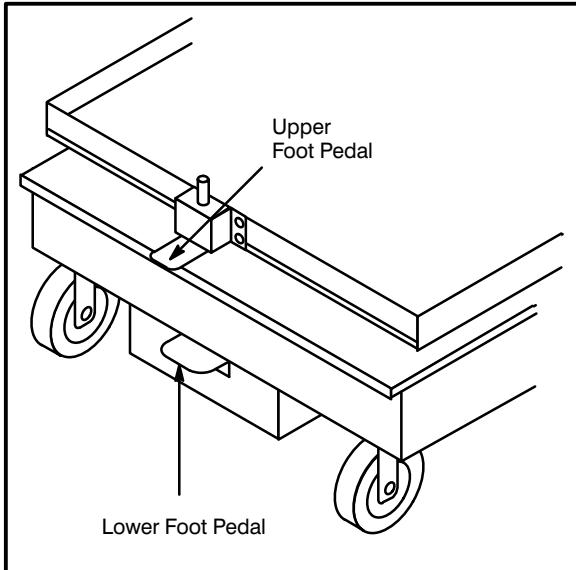


Figure 5

### USING RACKS

When the oven is used with racks, the interior divider should be in place to allow the proper air flow over the product. During loading, keep the pans toward the front of the racks. This will prevent any light batters from being ingested into the blower wheels. Always load each shelf evenly, spacing the pans away from each other and the sides or back of the oven. Shifting the product during the cooking cycle is generally not necessary.

# Operation



## Suggested Times and Temperatures

Product	Temperature	Time	# Shelves
<b>Meats</b>			
Hamburger Patties (5 per lb)	400°F (205°C)	8-10 mins.	10
Steamship Round (80 lb. quartered)	275°F (135°C)	2 hrs 45 mins.	2
Standing Rib Choice (20 lbs, trimmed, rare)	235°F (115°C)	2 hrs 45 mins.	2
Banquet Shell Steaks (10 oz. meat)	450°F (235°C)	7-8 mins.	5
Swiss Steak after Braising	275°F (135°C)	1 hr.	5
Baked Stuffed Pork Chop	375°F (190°C)	25-30 mins.	5
Boned Veal Roast (15 lbs.)	300°F (150°C)	3 hrs. 10 mins.	2
Lamb Chops (small loin)	400°F (205°C)	7-8 mins.	5
Bacon (on racks in 18" x 26" pans)	400°F (205°C)	5-7 mins.	10
<b>Poultry</b>			
Chicken Breast & Thigh	350°F (175°C)	40 mins.	5
Chicken Back & Wing	350°F (175°C)	35 mins.	5
Chicken (2 1/2 lbs. quartered)	350°F (175°C)	30 mins.	5
Turkey Rolled (18 lb. rolls)	310°F (155°C)	3 hrs 45 mins.	3
<b>Fish and Seafood</b>			
Halibut Steaks, Cod Fish (frozen 5 oz)	350°F (175°C)	20 mins.	5
Baked Stuffed Lobster (2 1/2 lb.)	400°F (205°C)	10 mins.	3
Lobster Tails (frozen)	425°F (220°C)	9 mins.	5
<b>Cheese</b>			
Macaroni & Cheese Casserole	350°F (175°C)	30 mins.	5
Melted Cheese Sandwiches	400°F (205°C)	8 mins.	10
<b>Potatoes</b>			
Idaho Potatoes (120 ct.)	400°F (205°C)	50 mins.	5
Oven Roasted Potatoes (sliced or diced)	325°F (165°C)	10 mins.	5
<b>Baked Goods</b>			
Frozen Berry Pies (22 oz)	325°F (150°C)	35 mins.	5 (30 pies)
Fresh Apple Pie (20 oz.)	350°F (175°C)	25-30 mins.	5 (30 pies)
Pumpkin Pies (32 oz.)	300°F (150°C)	30-50 mins.	5 (20 pies)
Fruit Crisp	300°F (150°C)	25 mins.	5
Bread (24 - 1 lb. loaves)	325°F (155°C)	30 mins.	3
Southern Corn Bread	375°F (190°C)	15-20 mins.	5
Baking Soda Biscuits	400°F (205°C)	6 mins.	5
Brown & Serve Rolls	350°F (175°C)	15 mins.	5
Sheet Cakes (5 lb. mixed batter per pan)	325°F (160°C)	16-18 mins.	5
Chocolate Cake	325°F (160°C)	20 mins.	5
Brownies	325°F (150°C)	15 mins.	5

*NOTE: Actual times and temperatures may vary considerably from those shown above. They are affected by weight of load, temperature of the product, recipe, type of pan and calibration of thermostat. Should your recipe vary, write in your proven time and temperature for ready reference.*



## Maintenance

### Cleaning and Preventative Maintenance

#### CLEANING THE OVEN

Painted and stainless steel ovens may be kept clean and in good condition with a light oil.

1. Saturate a cloth, and wipe the oven when it is cold.
2. Dry the oven with a clean cloth.

On the stainless front or interiors, deposits of baked on splatter may be removed with any non-toxic industrial stainless steel cleaner. Heat tint and heavy discoloration may be removed with any non-toxic commercial oven cleaner.

1. Apply cleaners when the oven is cold. Always rub with the grain of the metal.

The porcelain interior can be cleaned with any commercial oven cleaner. Be sure caustic cleaning compounds DO NOT come in contact with the blower wheel and the aluminized steel panel directly behind it.

1. Remove the racks, rack supports and blower wheel from the oven.
2. Soak the parts in a solution of ammonia and water.
3. Reinstall after cleaning.

#### PREVENTATIVE MAINTENANCE

The best preventative maintenance measures are, the proper installation of the equipment and a program for routinely cleaning the ovens.

##### Annual Maintenance

This oven requires no lubrication, however, the venting system should be checked annually for possible deterioration resulting from moisture and corrosive flue products.

If maintenance or repairs are required, contact your local Blodgett service company, a factory representative or the Blodgett Oven company.

#### WARNING!!

**Always disconnect the appliance from the power supply before servicing or cleaning.**



## Maintenance

### Troubleshooting Guide

POSSIBLE CAUSE(S)	SUGGESTED REMEDY
SYMPTOM: Oven will not fire.	<ul style="list-style-type: none"><li>• Oven not plugged in.</li><li>• Control set below ambient temperature.</li><li>• Doors are open.</li></ul> <ul style="list-style-type: none"><li>• Plug in electrical supply cord.</li><li>• Set to desired cook temperature.</li><li>• Close doors.</li></ul>
SYMPTOM: Oven does not come to ready.	<ul style="list-style-type: none"><li>• The oven has not reached preheat temperature.</li><li>• Internal problem with main temperature control.</li></ul> <ul style="list-style-type: none"><li>• Wait for oven to reach preheat temperature.</li><li>• *</li></ul>
SYMPTOM: Convection fan does not run.	<ul style="list-style-type: none"><li>• Oven is not plugged in.</li><li>• Blower switch not set to ON</li><li>• Circuit breaker tripped.</li><li>• Doors are open</li></ul> <ul style="list-style-type: none"><li>• Plug in electrical supply cord.</li><li>• Set the blower switch to ON.</li><li>• Reset the breaker.</li><li>• Close doors.</li></ul>
SYMPTOM: General baking problems.	<ul style="list-style-type: none"><li>• Thermostat out of calibration.</li><li>• Improper oven venting.</li></ul> <ul style="list-style-type: none"><li>• *</li><li>• *</li></ul>

\*Denotes remedy is a difficult operation and should be performed by qualified personnel only. It is recommended, however, that All repairs and/or adjustments be done by your local Blodgett service agency and not by the owner/operator. Blodgett cannot assume responsibility for damage as a result of servicing done by unqualified personnel.



#### WARNING!!

**Always disconnect the power supply before cleaning or servicing the oven.**

**CUSTOMER  
INSERT  
WIRING DIAGRAM  
HERE**

**IMPORTANT:**  
**This is your spanner key.**  
**Please save for future use.**